

**ABSTRACT**

5 A distortion removal system for reducing the quantization distortion that results from quantization of a signal by sample-by-sample quantization techniques is disclosed. The distortion removal system uses the signal previously quantized with the sample-by-sample quantization techniques to determine an expected quantization distortion. The expected quantization distortion is determined for each of a plurality of frames of the signal. The expected quantization distortion is removed from each of the frames of the signal.